IN THE CLAIMS

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Currently amended) A low Intermediate Frequency ~~IF~~ radio receiver4 comprising:

antenna means for receiving a slot-based radio signal at a carrier frequency and comprising successive frames each comprising a set of reception time slots;

input means responsive to a signal from said antenna means for producing an input signal;

local oscillator means ~~for producing at least one local oscillator signal having a local oscillator frequency, wherein said local oscillator means comprises I and Q channels~~ for producing ~~respectively I and Q~~In-phase and Quadrature components ~~of said local oscillator signal~~having a local oscillator frequency;

mixer means for mixing said input signal with said local oscillator signal In-phase and Quadrature components and producing ~~an IF signal, wherein said mixer means includes I and Q mixer channels for mixing said input signal with said I and Q components of said local oscillator signal and producing respectively~~ Intermediate Frequency signal ~~I and Q~~In-phase and Quadrature components ~~of said IF signal~~;

filter means responsive to said ~~IF~~Intermediate Frequency signal In-phase and Quadrature components for selectively passing frequencies within a low ~~IF~~Intermediate Frequency range and rejecting frequencies outside said low ~~IF~~Intermediate Frequency range so as to produce ~~a filtered signal, wherein said filter means includes I and Q filter channels for producing~~ filtered signal I and ~~Q~~In-phase and Quadrature components ~~of said filtered signal, respectively~~;

further local oscillator means for producing ~~I and Q~~ further local oscillator signal In-phase and Quadrature components having a further local oscillator frequency;

further mixer means including ~~I and Q~~ further mixer In-phase and Quadrature channels for mixing said filtered signal In-phase and Quadrature components with said ~~I and Q~~ further local oscillator signal In-phase and Quadrature components and producing ~~I and Q components of said~~ baseband signal In-phase and Quadrature components; and

~~I and Q~~ baseband filter means responsive to ~~said I and Q components of~~ said baseband signal In-phase and Quadrature components for selectively passing frequencies within a baseband frequency range and rejecting frequencies outside said baseband range ~~so as to produce I and Q components of said baseband signal, respectively~~.

wherein said local oscillator means includes frequency alternation means for causing said local oscillator frequency to alternate a plurality of times during said reception time slots of each of said frames between first and second values one of which is greater and the other smaller than said ~~the desired~~ carrier frequency ~~of the input signal~~; and

wherein said further local oscillator means includes phase alternation means for applying alternating phase shifts to said ~~I and Q~~ further local oscillator signal In-phase and Quadrature components in synchronism with said local oscillator frequency alternations.

6. (Currently amended) A low ~~IF~~Intermediate Frequency radio receiver as claimed in claim 5, wherein said phase alternation means is arranged to alternate said ~~I and Q~~ further local oscillator signal In-phase and Quadrature components between said ~~I and Q~~ further mixer In-phase and Quadrature channels in synchronism with said local oscillator frequency alternations.

7. (Currently amended) A low ~~IF~~Intermediate Frequency radio receiver as claimed in claim [[1]]5, wherein said frequency alternation means is arranged to alternate said

local oscillator frequency between said first and second values at each successive reception time slot of each of said frames.

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Currently amended) A low Intermediate Frequency ~~IF~~ radio receiver comprising:

an antenna module for receiving a slot-based radio signal at a carrier frequency and comprising successive frames each comprising a set of reception time slots;

an input module responsive to a signal from said antenna module for producing an input signal;

~~at least one~~a local oscillator module for producing ~~at least one local oscillator signal having a local oscillator frequency, wherein said local oscillator comprises I and Q channels for producing respectively I and Q~~ local oscillator signal In-phase and Quadrature components ~~of said local oscillator signal in phase quadrature~~having a local oscillator frequency;

~~at least one a~~ mixer module for mixing said input signal with said local oscillator signal In-phase and Quadrature components and producing ~~an IF~~Intermediate Frequency signal In-phase and Quadrature components~~, wherein said mixer includes I and Q mixer channels for mixing said input signal with said I and Q components of said local oscillator signal and producing respectively I and Q components of said IF signal~~; and

~~at least one~~a filter module responsive to said ~~IF~~Intermediate Frequency signal In-phase and Quadrature components for selectively passing ~~frequeuciesfrequencies~~ within a low ~~IF~~Intermediate Frequency range and

rejecting frequencies outside said low ~~IF~~Intermediate Frequency range so as to produce ~~a~~ filtered signal In-phase and Quadrature components.

~~wherein said local oscillator includes~~ a frequency alternation circuit for causing said local oscillator frequency to alternate relative to said carrier frequency a plurality of times during said reception time slots of each of said frames between first and second values one of which is greater and the other smaller than said carrier frequency,~~wherein said filter includes I and Q filter channels for producing I and Q components of said filtered signal, respectively.~~

a second local oscillator module for producing ~~I and Q~~ further local oscillator signal In-phase and Quadrature components having a further local oscillator frequency;

a second mixer module including I and Q further mixer channels for mixing said filtered signal In-phase and Quadrature components with said ~~I and Q~~ further local oscillator signal In-phase and Quadrature components and producing ~~I and Q components of said~~ baseband signal In-phase and Quadrature components; and

a second filter module ~~including I and Q further filter channels~~ responsive to said ~~I and Q components of said~~ baseband signal In-phase and Quadrature components for selectively passing frequencies within a baseband frequency range and rejecting frequencies outside said baseband range ~~so as to produce I and Q components of said baseband signal, respectively~~;

wherein said second local oscillator module includes a phase alternation circuit for applying alternating phase shifts to said ~~I and Q~~ further local oscillator signal In-phase and Quadrature components in synchronism with said local oscillator frequency alternations.

13. (Currently amended) A low Intermediate Frequency ~~IF~~ radio receiver as claimed in claim 12, wherein said phase alternation circuit is arranged to alternate said ~~I and Q~~ further local oscillator signal In-phase and Quadrature components between said ~~I~~

~~and Q~~ further mixer In-phase and Quadrature channels in synchronism with said local oscillator frequency alternations.

14. (Currently amended) A low Intermediate Frequency ~~IF~~ radio receiver as claimed in claim [[8]]12, wherein said frequency alternation circuits are arranged to alternate said local oscillator frequency between said first and second values at each successive reception time slot of each of said frames.

15. (Currently amended) A low Intermediate Frequency ~~IF~~ radio receiver as claimed in claim [[1]]5, wherein said local oscillator frequency is arranged to alternate between first and second values one of which is greater and the other smaller than said carrier frequency by the same frequency difference.

16. (Currently amended) A low ~~IF~~Intermediate Frequency radio receiver as claimed in claim [[8]]12, wherein said local oscillator frequency is arranged to alternate between first and second values one of which is greater and the other smaller than said carrier frequency by the same frequency difference.